Smile management has gradually evolved throughout several generations. The first documented attempts for smile management date back to the late 1970s when several sporadic reports showed how upper jaw surgery can correct the gummy smile. Thereafter, for a long time, smile management was limited to correction of the gummy smile patients with Le Fort osteotomy. Later, in 1982, Epker and his colleague published a landmark textbook that described etiology, diagnosis, and the treatment of the gummy smile by a team of orthodontists and oral and maxillofacial surgeons.1 Though these pioneer works are still the mainstay in the treatment of structural gummy smiles, and though this surgery is currently done with minimum morbidity and downtime, many patients and practitioners have been looking for a more conservative approach.

Lip repositioning is one of the earliest endeavors to find a noninvasive way to manage the gummy smile. In 1979, two plastic surgeons, Litton and Fournier,2 presented a simple approach to correct excessive gum show. In their approach, an elliptical piece of gum and lip is resected, and the upper lip is fixed to its new position. This technique has faded in and out several times in literature, and now it seems that lip repositioning is fully fledged in modern smile design with clear indications and techniques.

Use of botulinum toxin in smile improvement is an emerging concept that was first introduced by an orthodontist, Polo,3 in 2004. Though the idea still has many challenging details, such as target muscles to be paralyzed, dosage, and number of injection sites, the idea is definitely supported by literature and now is a known off-label use of botulinum toxin in facial cosmetic medicine.

Lips are the last component of the smile that are commonly underestimated in smile design. Lip lift is a known cosmetic surgery that is done for both lip rejuvenation and cosmetics. Lip augmentation is the other growing trend that directly affects smile design.4

Teeth are the other determinants of an ideal smile that have dramatically developed in last decades with few revolutionary concepts. Ackerman and Ackerman5 are two orthodontists (2002) who used digital software to analyze and plan the smile design. This innovative work may be credited as the formal opening of digital era in dentistry. Edward McLaren in 2004 describes a practical approach to use photoshop
software for smile design. This simple innovation is another turning point in smile management that makes all the steps more predictable and reproducible. And finally, Christian Coachman and his colleagues in 2017 introduced the digital smile design that is commonly known as a true revolution in smile management and probably in dentistry.

This issue of Dental Clinics of North America aims to present New Horizons in Smile Design. The editors of this issue believe that the multidisciplinary approach and digital technology are the backbone of the current and future smile design. Therefore, the main goal of this issue has been bridging all the above-mentioned islands in smile design and providing a real multidisciplinary reference for this challenging subject. Meanwhile, special attention has been given to digital smile concepts, which is fundamental to the most modern dental, surgical, and cosmetic approaches to smile design.

Behnam Bohluli, DMD, FRCD(C)  
Departement of Oral and Maxillofacial Surgery  
University of Toronto  
Toronto, ON, Canada

Shahrokh C. Bagheri, DMD, MD, FACS, FICD  
Georgia Oral & Facial Reconstructive Surgery  
Northside Hospital  
Council of Scientific Affairs, ADA

Seied Omid Keyhan, DDS, OMFS  
Maxillofacial Surgery & Implantology Biomaterial Research Foundation  
Tehran, Iran

E-mail addresses:  
bbohluli@yahoo.com (B. Bohluli)  
sbagher@hotmail.com (S.C. Bagheri)  
keyhanomid@ymail.com (S.O. Keyhan)

REFERENCES